



Matteo Martinelli

Management Engineer

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Available to work abroad

 Website: <https://matteo-martinelli.github.io/> 



Areas of interest: IT and software engineering, Project Management, Technical Sales and Account Management.

Professional Experience and Internships

Dec 2020 ->: Research Grant – Research group of **Pervasive Computing**, **UNIMORE**

▪ Workshops and Publications:

- Topic: Enabling causality learning in smart factories with hierarchical digital twins
 - Platform: Computers in Industry, "*Autonomous, Context-Aware, Adaptive **Digital Twins***" Special Issue
- Topic: Poka Yoke meets Deep Learning: a Proof of Concept for an Assembly Line Application
 - Platform: MDPI – ***Smart Manufacturing Systems in Industry4.0*** - Special Issue
- Topic: Conceptual Framework for individual and autonomous development of intelligent agents.
 - Platform: arXiv.
 - 29/11 – 3/12/2021: *Causal Italy workshop* - AIxIA annual conference – Milan, Italy.
 - 20-23/06/2022: *SeLIE workshop* - IE annual conference – Biarritz, France.

Nov 2019 – Dec 2020: Focus Improvement & Safety Specialist, Full time – Ognibene Power

- Main activities: **micro-areas management** and KPIs monitoring, Kaizen management, **SMED**, **Workplace Organization Step 1–3**, **Operation Tag**, **EWO**, **suggestions monitoring** and management, project management, **S-EWO**, **Green Tags**, Unsafe Conditions/Acts, S-Matrix monitoring, Green Cross monitoring.

Jun – Nov 2019: Workplace Organization Support, Part time – Ognibene Power

- Main activities: **Operation Tag analysis**, assembly layout analysis and improvement, tooling card analysis and improvement, **time and methods analysis**.

Jan – May 2019: Master's Degree Internship, Full time – Dana Motion System

- Main activities: **assembly line analysis**, As Is State and Performance mapping, **methods and time re-engineering**, **Plan For Every Part**, **supplier coordination** and solution implementation, **Poka-Yoke POC engineering** based on **Convolutional Artificial Deep Neural Network**.
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Education & Training

Oct 2022 – Apr 2023: Guest Researcher at **ISW - Institut für Steuerungstechnik der Werkzeugmaschinen** (Institute for Technologies of machine tools control)

- Topics: **Digital Twins for Industry 4.0 and Composability** - Universität Stuttgart, Stuttgart, Germany.

Jun 2022: ACAI TAILOR Summer School 2022 – **Prize for the best PhD project presentation**

- Topics: **Explainable and Trustworthy AI** - Universitat Politècnica de Catalunya, Barcelona, Spain.

Dec 2020 ->: Ph.D. in Industrial Innovation Engineering – Research group of Pervasive Computing, **UNIMORE**

- Main topics: **AI** applied to **IoT** scenarios, Big Data analysis, **Digital Twins**.
- Project: Self-organizing systems in twinned industrial environment with autonomous learning and causal models.

Oct 2019: Management Engineering Master's Degree, **UNIMORE** 105/110

- Thesis: "*An assembly line re-engineering: The Dana Motion System case*".

Jul 2017: participation at the Erasmus+ Program – Krakow, Poland

Dec 2015: Management Engineering Bachelor's Degree, **UNIMORE** 95/110

- Thesis: "*Implementation of a reading and translation system of DXF files into two axis PLC instructions*".
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Computer Skills:

- Programming Languages: C#, Java, Python, JavaScript.
- Web technologies: HTML, CSS.
- Programming Libraries: Keras, Numpy, Pandas, PuLP.
- DB Technologies and developing tools: SQL, document-oriented DBs, Docker, Git, UML.
- Operating Systems: Windows, Ubuntu.
- Software: Anylogic – Material Handling and Process Model libraries, Ms Office suite.

Languages

- **English** (C1 grade); **German** (A2 grade); **Italian** (mother language).

Soft Skills

- Precise
 - Reliable
 - Communicative
 - Loyal
 - Open minded and learning oriented
 - Assertive
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Other Information

- Attachment 1: Certificates and Badges.pdf

Date

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Certificates and Badges



Software and technologies for Data Science

- Date: March 2021;
- Provided by: the Big DataLab project sponsored by the ESF.

https://openbadges.bestr.it/public/assertions/rh6U8Z45S8GyXH_Wx6koSg



Internet of Things and Predictive Analysis

- Date: June 2021;
- Provided by: the Big DataLab project sponsored by the ESF.

<https://openbadges.bestr.it/public/assertions/JNZKBoomR8GTvl-0YMc3lQ>



Deep Learning Applications

- Date: June 2021;
- Provided by: the Big DataLab project sponsored by the ESF.

<https://openbadges.bestr.it/public/assertions/bVoUXhQHRG2vhfunvjMTCw>

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